Docket No.

218195US0X PCT

# 90 Rec'd PCT/PTO 24 JUN 2002 #

CENTER 17 2002

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Paolo PEVARELLO, et al.

SERIAL NO:

10/049,288

GAU:

FILED:

May 9, 2002

EXAMINER:

FOR:

3(5)-UREIDO-PYRAZOLE DERIVATIVES, PROCESS FOR THEIR PREPARATION AND THEIR US

ANTITUMOR AGENTS

## **INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

ASSISTANT COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231

SIR

Applicant(s) wish to disclose the following information.

#### REFERENCES

- The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

#### RELATED CASES

- Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

#### **CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- □ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

#### **DEPOSIT ACCOUNT**

Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

Norman F. Oblon

Registration No. 24,618

Surinder Sachar

Registration No. 34,423

22850

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(OSMMN 03/02)

| APPLICANT   APPLICATION   APPLICATIO   | Form PTO 1449                         | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                                                         |                                 | ATTY DOCKET NO.<br>218195US0X PCT                                                 |                                | SERIAL NO.<br>10/049,288 |                           |  |
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| Pacific Pevarello, et al.   Filing Date   May 9, 2002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       |                                                            |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| FILING DATE   May 9, 2002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       |                                                            |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| May 9, 2002   SAMINER   CLASS   SUB   FILING DATE   NAME   CLASS   CLASS   IF APPROPRIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LIST OF REFERENCES CITED BY APPLICANT |                                                            |                                                         |                                 | Paolo PEVARELLO, et al.                                                           |                                |                          |                           |  |
| STAMINER   NOUMBER   DATE   NAME   CLASS   SUB   FILING DATE   NAME   CLASS   CLASS   FAPROPRIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                       |                                                            |                                                         |                                 |                                                                                   |                                | GROUP                    |                           |  |
| NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |                                                            |                                                         |                                 | May 9, 2002                                                                       |                                |                          |                           |  |
| NAME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |                                                            |                                                         |                                 | U.S. PATENT DOCUMENTS                                                             |                                |                          |                           |  |
| AB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |                                                            |                                                         | DATE                            | NAME                                                                              | CLASS                          |                          |                           |  |
| AC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | AA                                                         | 6 043 246                                               | 03/28/00                        | Takehiro FUKAMI et al.                                                            |                                |                          |                           |  |
| AD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | AB                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | AC                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AF AG AG AH AH AI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       | AD                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | AE                                                         |                                                         |                                 |                                                                                   |                                | <u> </u>                 |                           |  |
| AH AI AI AJ AX AK AL AL AM AN BOCUMENT FOREIGN PATENT DOCUMENTS  FOREIGN PATENT DOCUMENTS  TRANSLATION YES NO AO AP AQ AQ AQ AR AR AS AS AT AT AU AV OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW AX AX AY  AZ  AZ  AZ  AZ  AZ  Additional References sheet(s) attachs  Examiner  Date Considered  Translation  TRANSLATION YES NO  AA AA AA AB AA AB AB AB AB AB AB AB AB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       | AF                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
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| AJ AK AL AL AM AN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       | AH                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AK AL AL AM AN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | Al                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AL AM AN FOREIGN PATENT DOCUMENTS  FOREIGN PATENT DOCUMENTS  DOCUMENT NUMBER DATE COUNTRY TRANSLATION YES NO AO AP AP AQ AQ AR AR AR AN AY AY AY AX AZ Date Considered. Whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       | AJ                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| FOREIGN PATENT DOCUMENTS  TRANSLATION YES NO  AO  AO  AR  AR  AS  AT  AU  AV  OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AX  AX  AY  Date Considered  Translation YES NO  Additional References sheet(s) attached a considered. Whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                       | AK                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| FOREIGN PATENT DOCUMENTS    DOCUMENT NUMBER   DATE   COUNTRY   TRANSLATION YES   NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       | AL                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| FOREIGN PATENT DOCUMENTS  DOCUMENT NUMBER DATE COUNTRY TRANSLATION YES NO  AO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                       | AM                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| DOCUMENT NUMBER  AO  AO  AP  AQ  AR  AS  AT  AU  AV  OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW  AX  AY  AZ  AZ  AZ  AZ  AZ  AZ  Date Considered  TExaminer  Date Considered  Texaminer Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       | AN                                                         |                                                         |                                 |                                                                                   |                                |                          | <u> </u>                  |  |
| NUMBER  AO  AO  AP  AQ  AQ  AR  AS  AT  AU  AV  OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW  AX  AY  AZ  AZ  Additional References sheet(s) attached by the page of th |                                       |                                                            |                                                         | FC                              | REIGN PATENT DOCUMENTS                                                            |                                |                          |                           |  |
| AP AQ AQ AR AR AS AS AT AU AV  OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW AX AY  AZ  AZ  AZ  AZ  AZ  AZ  AZ  AZ  AZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |                                                            |                                                         | DATE                            | COUNTRY                                                                           |                                |                          |                           |  |
| AQ AR AS AS AT AU AV OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW AX AY AZ  Examiner  Sequence is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                       | AO                                                         |                                                         | 1                               |                                                                                   |                                |                          |                           |  |
| AR AS AS AT AU AV OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)  AW AX AY AZ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       | AP                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
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| AX  AY  AZ  Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       | AU                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AX  AY  AZ  AZ  Additional References sheet(s) attached  Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                       | AV                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AX  AY  AZ  Additional References sheet(s) attached  Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       |                                                            | OTHER REI                                               | ERENCES                         | (Including Author, Title, Date, Pertin                                            | ent Pages, e                   | etc.)                    |                           |  |
| AZ  Additional References sheet(s) attache  Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       | AW                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| AZ  Additional References sheet(s) attached  Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       | AX                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| Examiner  Date Considered  *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       | AY                                                         |                                                         |                                 |                                                                                   |                                |                          |                           |  |
| *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       | AZ                                                         |                                                         |                                 |                                                                                   | Add                            | litional Refe            | erences sheet(s) attached |  |
| *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Examiner                              | _1                                                         |                                                         |                                 |                                                                                   | Date Co                        | Date Considered          |                           |  |
| conformance and not considered. Include copy of this form with next communication to applicant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | *Examiner: I                          | nitial if                                                  | reference is considered, v<br>ot considered. Include co | whether or no<br>by of this for | ot citation is in conformance with MPEF<br>or with next communication to applican | <sup>2</sup> 609; Draw I<br>t. | ine through              | n citation if not in      |  |

# INTERNATIONAL SEARCH REPORT

International application No. PCT/US00/17878

| A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) :A61K 31/415, 31/496; C07D 231/40, 403/12  US CL :514/252, 404; 540/575; 544/364, 371; 548/371.7; 546/211, 275.4  According to International Patent Classification (IPC) or to both national classification and IPC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                         |  |  |  |  |  |  |
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| Minimum documentation searched (classification system followed by classification symbols)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| U.S. : 514/252, 404; 540/575; 544/364, 371; 548/371.7; 546/211, 275.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Category* Citation of document, with indication, where ap                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | propriate, of the relevant passages Relevant to claim No.                                                                                                                                                               |  |  |  |  |  |  |
| X, P US 6,043,246 A (FUKAMI et al) 28 Ma entire document.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | arch 2000 (28.03.00), see the 1-23                                                                                                                                                                                      |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Consider family appea                                                                                                                                                                                                   |  |  |  |  |  |  |
| Further documents are listed in the continuation of Box C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | See patent family annex.                                                                                                                                                                                                |  |  |  |  |  |  |
| Special categories of cited documents:     Special categories o |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| *A* document defining the general state of the art which is not considered to be of particular relevance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | the principle or theory underlying the invention  document of particular relevance; the claimed invention cannot be                                                                                                     |  |  |  |  |  |  |
| *B* earlier document published on or after the international filing date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | considered novel or cannot be considered to involve an inventive step when the document is taken alone                                                                                                                  |  |  |  |  |  |  |
| *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul> <li>You document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination</li> </ul> |  |  |  |  |  |  |
| "O" document referring to an oral disclosure, use, exhibition or other means                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | being obvious to a person skilled in the art                                                                                                                                                                            |  |  |  |  |  |  |
| *P* document published prior to the international filing date but later than the priority date claimed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Date of mailing of the international search report                                                                                                                                                                      |  |  |  |  |  |  |
| Date of the actual completion of the international search  19 OCTOBER 2000  Date of mailing of the international search  2 0 NOV 2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Authorized officer  FREDERICK KRASS  Talentone No. (703) 308-1235                                                                                                                                                       |  |  |  |  |  |  |